

AMENDMENTS TO THE DRAWINGS:

Replacement drawing sheets for Figures 1-4 are submitted herewith.

REMARKS

Applicants respectfully request favorable reconsideration of the subject application, as amended.

In the Office Action, Claims 21-37, 39-42 and 46-47 were rejected under 35 U.S.C. § 101; Claims 32-37 were rejected under 35 U.S.C. § 112, first paragraph; Claims 21-47 were rejected under 35 U.S.C. § 112, second paragraph; Claims 21 and 45 were objected to; and Claims 21-47 were rejected under 35 U.S.C. § 102 over Killian and under 35 U.S.C. § 102 over Lin.

By this Amendment, Claims 21-47 are cancelled without prejudice or disclaimer in favor of new Claims 48-70. New Claims 71-72 have also been added. Claims 1-20 were previously cancelled without prejudice or disclaimer. Thus, Claims 48-72 are pending. A new set of drawings is submitted herewith as requested in the Office Action.

Applicants respectfully request the rejections under § 112 and the claim objections be withdrawn as moot in view of newly submitted Claims 48-72.

Without acceding to the rejection under 35 U.S.C. § 101, new independent Claims 48 and 71 recite, *inter alia*, outputting one or more error notifications if an error is detected by said validation. New independent Claim 55 recites, *inter alia*, output of one or more error notifications if an error is detected by a functional validation test program. Support is found, for example, at paragraphs [0082] and [0104] of the specification. Applicants respectfully submit that Claims 48 and 55 thus recite a useful, tangible and concrete result. *See State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373-74 (Fed. Cir. 1998). Therefore, Applicants respectfully request that this rejection be withdrawn.

Turning to the merits, new Claim 48 recites, *inter alia*, creating an autonomous circuit emulator constituted with a data processing system, obtained by replacing the software model which is in a low level programming language and that physically describes an ASIC comprising a circuit under design to be validated, with a high level language abstract description generating response data structures in accordance with a functional specification of the project as a function of stimuli received. It is apparent that neither Killian nor Lin teach or suggest, at minimum, these features of Claim 48.

For example, Killian discloses a system that can automatically configure a processor by generating both a description of a hardware implementation of the processor and a set of software development tools for programming the processor. *See* Killian, col. 6, lines 32-37. In particular, Killian discloses defining an instruction set architecture description language. *See* Killian, col. 6, lines 65-67. However, Killian does not teach or suggest creating an autonomous circuit emulator obtained by replacing the software model which is in a low level programming language and that physically describes an ASIC comprising a circuit under design to be validated, with a high level language abstract description generating response data structures in accordance with a functional specification of the project as a function of stimuli received, as recited in Claim 48.

Furthermore, Lin discloses a coverification system with modes of operation including software simulation, simulation through hardware acceleration, in-circuit emulation, and post-simulation analysis. *See* Lin, col. 17, lines 45-50. However, Lin does not teach or suggest creating an autonomous circuit emulator obtained by replacing the software model which is in a low level programming language and that physically describes an ASIC comprising a circuit under design to be validated, with a

high level language abstract description generating response data structures in accordance with a functional specification of the project as a function of stimuli received, as recited in Claim 48.

Therefore, Applicants respectfully submit that Claim 48 patentably distinguishes from both Killian and Lin.

Similarly, new independent Claim 55 recites, *inter alia*, the data processing means being constructed and arranged to read functional specification elements of the ASIC in a high level language. New independent Claim 71 recites, *inter alia*, creating an autonomous circuit emulator obtained by replacing the software model which is in a low level programming language and that physically describes an ASIC comprising a circuit under design to be validated, with a high level language abstract description generating response data structures in accordance with a functional specification of the project as a function of stimuli received. Therefore, Applicants respectfully submit that Claims 55 and 71 patentably distinguish from both Killian and Lin for at least the same reason as discussed above with respect to Claim 48.

Accordingly, Applicants respectfully request that rejections on Killian and Lin be withdrawn.

New Claims 71 and 72 have been added to protect additional aspects of Applicant's invention. Claims 71 and 72 are believed to be patentable for at least the reasons discussed above.

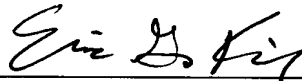
Therefore, independent Claims 48, 55 and 71, as well as their respective dependents, are believed to be in condition for allowance. A Notice of Allowance is respectfully requested.

Should the Examiner believe that any further action is necessary to place this application in better form for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 (T2147-908627) any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby requested.

Respectfully submitted,

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